

UNMATCHED LEFT PARENTHESIS '(SAPOSIN'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s saposin (p) blood  
L9 44 SAPOSIN (P) BLOOD

=> d ibib abs 1-44

L9 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:941423 CAPLUS  
TITLE: Immunoquantification of  $\alpha$ -galactosidase:  
Evaluation for the diagnosis of fabry disease  
AUTHOR(S): Fuller, Maria; Lovejoy, Melanie; Brooks, Doug A.;  
Harkin, Miriam L.; Hopwood, John J.; Meikle, Peter J.  
CORPORATE SOURCE: Lysosomal Diseases Research Unit, Department of  
Genetic Medicine, Women's and Children's Hospital,  
North Adelaide, Australia  
SOURCE: Clinical Chemistry (Washington, DC, United States)  
(2004), 50(11), 1979-1985  
PUBLISHER: CODEN: CLCHAU; ISSN: 0009-9147  
DOCUMENT TYPE: American Association for Clinical Chemistry  
LANGUAGE: Journal  
English  
AB Background: Fabry disease is an X-linked inborn error of  
glycosphingolipid catabolism resulting from a deficiency of the lysosomal  
exoglycohydrolase,  $\alpha$ -galactosidase. Enzyme replacement therapy is currently available  
for Fabry disease, but early diagnosis before the onset of irreversible  
pathol. will be mandatory for successful treatment. Presymptomatic  
detection would be possible through the use of a newborn-screening  
program. We report on the use of sensitive assays for the measurement of  
 $\alpha$ -galactosidase protein and activity and for the protein  
**saposin C**, which are diagnostic markers for Fabry disease.  
Methods: Two sensitive immunoassays for the measurement of  
 $\alpha$ -galactosidase activity and protein were used to determine the concns.  
of  $\alpha$ -galactosidase in dried filter-paper blood spots and  
plasma samples from control patients and patients with a lysosomal  
storage disorder (LSD). Results: Fabry hemizygous individuals were clearly  
identified from control populations by decreases in both  
 $\alpha$ -galactosidase activity and protein. Fabry heterozygotes generally  
fell between the hemizygotes and controls. Including the measurement of  
**saposin C** enabled differentiation between Fabry heterozygotes and  
controls. In blood spots, all Fabry individuals could be  
distinguished from control blood spots as well as from 16 other  
LSD patients. Conclusions: The determination of  $\alpha$ -galactosidase  
activity or  
protein in dried filter-paper blood spots could be used for the  
diagnosis of Fabry patients. With further validation, these assays could  
be used for the identification of Fabry patients in newborn-screening  
programs and may also be suitable for screening high-risk populations.  
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR  
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L9 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2004 ACS on STN  
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=> s saposin  
L8 1288 SAPOSIN

=> s (saposin (p) (blood or serum or urine or amniotic)  
UNMATCHED LEFT PARENTHESIS '(SAPOSIN'  
The number of right parentheses in a query must be equal to the  
number of left parentheses.

=> s (saposin (p) (blood)

3 FILES SEARCHED...

L10 646 SAPOSIN (1W) (A OR C OR D)

=> s ((saposin) (1w) (a or c or d)) (p) blood

3 FILES SEARCHED...

L11 28 ((SAPOSIN) (1W) (A OR C OR D)) (P) BLOOD

=> d ibib abs 1-28

L11 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:941423 CAPLUS  
TITLE: Immunoquantification of  $\alpha$ -galactosidase:  
Evaluation for the diagnosis of fabry disease  
AUTHOR(S): Fuller, Maria; Lovejoy, Melanie; Brooks, Doug A.;  
Harkin, Miriam L.; Hopwood, John J.; Meikle, Peter J.  
CORPORATE SOURCE: Lysosomal Diseases Research Unit, Department of  
Genetic Medicine, Women's and Children's Hospital,  
North Adelaide, Australia  
SOURCE: Clinical Chemistry (Washington, DC, United States)  
(2004), 50(11), 1979-1985  
CODEN: CLCHAU; ISSN: 0009-9147  
PUBLISHER: American Association for Clinical Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Background: Fabry disease is an X-linked inborn error of glycosphingolipid catabolism resulting from a deficiency of the lysosomal exoglycohydrolase,  $\alpha$ -galactosidase. Enzyme replacement therapy is currently available for Fabry disease, but early diagnosis before the onset of irreversible pathol. will be mandatory for successful treatment. Presymptomatic detection would be possible through the use of a newborn-screening program. We report on the use of sensitive assays for the measurement of  $\alpha$ -galactosidase protein and activity and for the protein **saposin C**, which are diagnostic markers for Fabry disease. Methods: Two sensitive immunoassays for the measurement of  $\alpha$ -galactosidase activity and protein were used to determine the concns. of  $\alpha$ -galactosidase in dried filter-paper **blood** spots and plasma samples from control patients and patients with a lysosomal storage disorder (LSD). Results: Fabry hemizygous individuals were clearly identified from control populations by decreases in both  $\alpha$ -galactosidase activity and protein. Fabry heterozygotes generally fell between the hemizygotes and controls. Including the measurement of **saposin C** enabled differentiation between Fabry heterozygotes and controls. In **blood** spots, all Fabry individuals could be distinguished from control **blood** spots as well as from 16 other LSD patients. Conclusions: The determination of  $\alpha$ -galactosidase activity or protein in dried filter-paper **blood** spots could be used for the diagnosis of Fabry patients. With further validation, these assays could be used for the identification of Fabry patients in newborn-screening programs and may also be suitable for screening high-risk populations.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L11 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

that this precursor cell in the digesting macrophage system also has an impaired metabolic catabolism for lipopigments (3). Immunohistochemical studies indicate that microglial reaction in NCL brain is limited to resident microglia without contribution by circulating monocytes (4). The granular osmophilic deposit (GROD) type of NCL has now been established not only in infantile, but also in late-infantile, juvenile, and protracted-juvenile NCL (5). A European Tissue Registry established within

the framework of a European Concerted Action on Neuronal Ceroid-Lipofuscinosis may form the basis for additional collaborative studies on NCL, including both biopsy and autopsy tissues.

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on STN

ACCESSION NUMBER: 90030178 EMBASE  
DOCUMENT NUMBER: 1990030178  
TITLE: Sphingolipid hydrolase activator proteins and their precursors.  
AUTHOR: Sano A.; Hineno T.; Mizuno T.; Kondoh K.; Ueno S.; Kakimoto Y.; Inui K.  
CORPORATE SOURCE: Department of Neuropsychiatry, Ehime University School of Medicine, Ehime 791-02, Japan  
SOURCE: Biochemical and Biophysical Research Communications, (1989) 165/3 (1191-1197).  
ISSN: 0006-291X CODEN: BBRCA  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 025 Hematology  
029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB Activator proteins for sphingolipid hydrolases (**saposins**) are small acidic, heat-stable glycoproteins that stimulate the hydrolysis of sphingolipids by lysosomal enzymes. The molecular mass of each stimulator is about 10 kDa, but glycosylated forms of higher mass exist too. The distribution and developmental changes in two **saposins** and their precursor proteins were studied with the aid of monospecific antibodies against **saposin-B** and **saposin-C**. They show a wide distribution in rat organs and forms intermediate between **saposin** and prosaposin (the precursor protein containing four different **saposin** units) could be seen. The amount of **saposin** and the degree of processing from prosaposin are quite different in different tissues. The **saposins** are the dominant forms in spleen, lung, liver, and kidney, while skeletal muscle, heart, and brain contain mainly precursor forms. In human blood, leukocytes contain mainly **saposin**, while plasma contains mainly precursor forms and platelets show many forms. Their subcellular distribution was studied using rat liver. The **saposins** of approximately 20 kDa are dominant in the light mitochondrial, mitochondrial, and microsomal fractions, following the distribution of the activity of a lysosomal marker enzyme. The nuclear fraction exhibits bands corresponding to non-glycosylated **saposin**. The soluble fraction contained much precursor forms. A developmental study of rat brain showed that the concentration of **saposin** precursors increased with age.

=> saposin (lw) (a or c or d)

developed by creating a null allele in embryonic stem cells through gene targeting to investigate the phenotypic diversity of prosaposin mutations and the involvement of this protein in lysosomal storage diseases, and for the development of therapeutic approaches. Mice homozygous mutants die at the age of 35-40 days and neurological disorders contribute to the early demise of the mutant mice. The male reproductive organs in homozygous mutants show several abnormalities, such as a decrease in testis size with reduced spermiogenesis and an involution of the prostate, seminal vesicles, and epididymis. In these animals, the blood levels of testosterone remain normal. In the prostate of homozygous mutants, only the basal epithelial cells appear to be present, while the secretory cells are absent. These findings suggest that prosaposin may be involved in the development and maintenance of the male reproductive organs, as well as, in cellular differentiation.

L11 ANSWER 22 OF 28 MEDLINE on STN  
ACCESSION NUMBER: 90121224 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 2610686  
TITLE: Sphingolipid hydrolase activator proteins and their precursors.  
AUTHOR: Sano A; Hineno T; Mizuno T; Kondoh K; Ueno S; Kakimoto Y; Inui K  
CORPORATE SOURCE: Department of Neuropsychiatry, Ehime University School of Medicine, Japan.  
SOURCE: Biochemical and biophysical research communications, (1989 Dec 29) 165 (3) 1191-7.  
Journal code: 0372516. ISSN: 0006-291X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199002  
ENTRY DATE: Entered STN: 19900328  
Last Updated on STN: 19900328  
Entered Medline: 19900213

AB Activator proteins for sphingolipid hydrolases (saposins) are small acidic, heat-stable glycoproteins that stimulate the hydrolysis of sphingolipids by lysosomal enzymes. The molecular mass of each stimulator

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on STN

ACCESSION NUMBER: 2004460372 EMBASE  
TITLE: Immunoquantification of  $\alpha$ -galactosidase: Evaluation for the diagnosis of fabry disease.  
AUTHOR: Fuller M.; Lovejoy M.; Brooks D.A.; Harkin M.L.; Hopwood J.J.; Meikle P.J.  
CORPORATE SOURCE: M. Fuller, Lysosomal Diseases Research Unit, Department of Genetic Medicine, Women's and Children's Hospital, 72 King William Rd., North Adelaide, SA 5006, Australia.  
maria.fuller@adelaide.edu.au  
SOURCE: Clinical Chemistry, (2004) 50/11 (1979-1985).  
Refs: 19  
ISSN: 0009-9147 CODEN: CLCHAU  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 007 Pediatrics and Pediatric Surgery  
029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
AB Background: Fabry disease is an X-linked inborn error of glycosphingolipid catabolism resulting from a deficiency of the lysosomal exoglycohydrolase,  $\alpha$ -galactosidase. Enzyme replacement therapy is currently available for Fabry disease, but early diagnosis before the onset of irreversible pathology will be mandatory for successful treatment. Presymptomatic detection would be possible through the use of a newborn-screening program. We report on the use of sensitive assays for the measurement of  $\alpha$ -galactosidase protein and activity and for the protein saposin C, which are diagnostic markers for Fabry disease. Methods: Two sensitive immunoassays for the measurement of  $\alpha$ -galactosidase activity and protein were used to determine the concentrations of  $\alpha$ -galactosidase in dried filter-paper blood spots and plasma samples from control patients and patients with a lysosomal storage disorder (LSD). Results: Fabry hemizygous individuals were clearly identified from control populations by decreases in both  $\alpha$ -galactosidase activity and protein. Fabry heterozygotes generally fell between the hemizygotes and controls. Including the measurement of saposin C enabled differentiation between Fabry heterozygotes and controls. In blood spots, all Fabry individuals could be distinguished from control blood spots as well as from 16 other LSD patients. Conclusions: The determination of  $\alpha$ -galactosidase activity or protein in dried filter-paper blood spots could be used for the diagnosis of Fabry patients. With further validation, these assays could be used for the identification of Fabry patients in newborn-screening programs and may also be suitable for screening high-risk populations. .COPYRGT. 2004 American Association for Clinical Chemistry.

